Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Sheet

#### Complete if Known

### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

10/586,020
July 18, 2008
Morteza Naghavi
3768
N. L. Evoy
1362001-2068.1

Examiner	·}	U.S. Patent Document	TENT DOCUMENTS Publication Date	Name of Patentan
Initials	Cite No.1	Number-Kind Code <sup>2 (# known)</sup>	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
iiiiiais	1	3778756	12-11-1973	Houston et al.
·····	2	5186177	02-16-1993	O'Donnell et al.
	3	5269307	12-14-1993	
n =	.f.a			Fife et al.
*****	4	5271928	12-21-1993	Schneider et al.
	5	5410516	04-25-1995	Uhlendorf et al.
	6	5413774	05-09-1995	Schneider et al.
*********	7	5445813	08-29-1995	Schneider et al.
~~~~~	8	5523058	06-04-1996	Umemura et al.
	9	5597549	01-28-1997	Schneider et al.
*******	10	5678553	10-21-1997	Uhlendorf et al.
***********	11	5696737	12-09-1997	Hossack et al.
	12	5771933	06-30-1998	Akamatsu et al.
	13	5793701	08-11-1998	Wright et al.
	14	5827504	10-27-1998	Yan et al.
	15	5833613	11-10-1998	Averkiou et al.
	16	5833615	11-10-1998	Wu et al.
***************************************	17	5865751	02-02-1999	Okuno et al.
***************************************	18	5879303	03-09-1999	Averkiou et al.
	19	5891038	04-06-1999	Seyed-Boloforosh et al.
*****************	20	5902243	05-11-1999	Holley et al.
**********	21	5908389	06-01-1999	Roundhill et al.
***************************************	22	5919137	07-06-1999	Finger et al.
***************************************	23	5980459	11-09-1999	Chiao et al.
	24	6015385	01-18-2000	Finger et al.
***************************************	25	6050942	04-18-2000	Rust et al.
	26	6064827	05-16-2000	Uhlendorf et al.
	27	6074348	06-13-2000	Chiao et al.
	28	6095980	08-01-2000	Burns et al.
	29	6108572	08-22-2000	Panda et al.
	30	6117082	09-12-2000	Bradley et al.
	31	6120448	09-19-2000	Bradley et al.
***************************************	32	6139501	10-31-2000	Roundhill et al.

Examiner Date Signature Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional), <sup>2</sup>See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>8</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 GFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Complete if Known

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	INFORMATION DISCLOSURE	Application Number	10/586,020
	STATEMENT BY APPLICANT	Filing Date	July 18, 2008
-	SIMICIAICIAI DI MELTINMIAI	First Named Inventor	Morteza Naghavi
		Art Unit	3768
- 1	l		

(use as many sheets as necessary)

Substitute for form 1449A/PTO

Examiner Name N. L. Evoy Sheet Attorney Docket Number 1362001-2068.1

	33	6171246 B1	01-09-2001	Averkiou et al.
	34	6179781 B1	01-30-2001	Phillips
	35	6186949 B1	02-13-2001	Hatfield et al.
***************	36	6190322 B1	02-20-2001	Clark
~~~~	37	6193662 B1	02-27-2001	Hwang
~~~~~~	38	6193663 B1	02-27-2001	Napolitano et al.
******	39	6210332 B1	04-03-2001	Chiao et al.
***********	40	6210334 B1	04-03-2001	Phillips
••••	41	6221018 B1	04-24-2001	Ramamurthy et al.
*******	42	6228031 B1	05-08-2001	Hwang et al.
	43	6241674 B1	06-05-2001	Phillips et al.
	44	6251074 B1	06-26-2001	Averkiou et al.
**********	45	6283919 B1	09-04-2001	Roundhill et al.
	46	6287258 B1	09-11-2001	Phillips
••••	47	6312386 B1	11-06-2001	Boloforosh et al.
	48	6315729 B1	11-13-2001	Averkiou et al.
	49	6319203 B1	11-20-2001	Averkiou
A44444444	50	6333021 B1	12-25-2001	Schneider et al.
•••••	51	6358210 B2	03-19-2002	Gee et al.
	52	6436046 B1	08-20-2002	Napolitano et al.
	53	6454714 B1	09-24-2002	Ng et al.
	54	6511426 B1	01-28-2003	Hossack et al.
	55	6537222 B1	03-25-2003	Clark et al.
	56	6540684 B2	04-01-2003	Averkiou et al.
	57	6544182 B2	04-08-2003	Averkiou
	58	6575910 B2	06-10-2003	Averkiou et al.
	59	6605043 B1	08-12-2003	Dreschel et al.
	60	6607490 B2	08-19-2003	Ogasawara et al.
********	61	6645147 B1	11-11-2003	Jackson et al.
*******	62	6666824 B2	12-23-2003	Rust et al.
	63	6749569 B1	06-14-2004	Pellegretti
	64	6773401 B1	08-10-2004	Dreschel et al.
	65	6755787 B2	06-29-2004	Hossack et al.
	66	6786097 B2	09-07-2004	Song et al.

	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Examiner	Date
Signature	Considered
Signature	Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. 'Applicants unique citation designation number (optional). 'See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Tradernark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Sheet

Complete if Known

#### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Application Number	10/586,020
Filing Date	July 18, 2008
First Named Inventor	Morteza Naghavi
Art Unit	3768
Examiner Name	N. L. Evoy
Attorney Docket Number	1362001-2068.1

	67	6827685 B2	12-07-2004	Lin et al.
	68	6909796 B2	06-21-2005	Pomata et al.
	69	7094204 B2	08-22-2006	Banjanin et al.
	70	2002/0040189 A1	04-04-2002	Averkiou et al.
	71	2002/0042576 A1	04-11-2002	Averkiou
	72	2002/0055681 A1	05-09-2002	Averkiou et al.
	73	2003/0018253 A1	01-23-2003	Napolitano et al.
	74	2003/0036704 A1	02-20-2003	Cerofolini
	75	2003/0069504 A1	04-10-2003	Wilkening et al.
	76	2004/0034305 A1	02-19-2004	Song et al.
	77	2004/0059218 A1	03-25-2004	Kanda et al.
	78	2004/0087857 A1	05-06-2004	Napolitano et al.
	79	2004/0133106 A1	07-08-2004	Kakee et al.
	80	2004/0230121 A1	11-18-2004	Hansen et al.
**************	81	2004/0254462 A1	12-16-2004	Kawagishi et al.
<del></del>	82	2005/0033167 A1	02-10-2005	Trucco et al.
*****************	83	2005/0049496 A1	03-03-2005	Guracar
^~~	84	2005/0124882 A1	06-09-2005	Ladabaum et al.
	85	2006/0084874 A1	04-20-2006	Imamura et al.

		FOREIGN PA	TENT DOCUMENTS		
Examiner		Foreign Patent Document	Publication Date	Name of Patentee or	••••••
Initials	Cite No.1	Country <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5 (if known)</sup>	MM-DD-YYYY	Applicant of Cited Document	Te.
	86	EP 0014793	09-03-1980	General Electric Company	
	87	EP 0619104	10-12-1994	Hitachi, Ltd.	
	88	EP 1004894	05-31-2000	General Electric Company	
•••••	89	GB 2434449	07-25-2007	Erasmus Universitair	******
*****************	90	JP 2213332	08-24-1990	Hitachi, Ltd.	X
***************************************	91	JP 2000005163	01-11-2000	Yokogawa Medical Syst	Χ
**************	92	JP 2001314499	11-13-2001	General Electric	Х
	93	JP 2002238900	08-27-2002	Aloka Co. Ltd.	X
	94	JP 2002369817	12-24-2002	Tokyo Shibaura Electric Co.	Х
	95	WO 94/06380	09-14-2003	Hitachi, Ltd.	Х

A4444444444444444444444444444444444444	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Examiner	Date
Signature	Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicants unique citation designation number (optional), See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901,04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required	to respond to a collection of information unless it contains a valid OMB control number
Substitute for form 1449A/PTO	Complete if Known

### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)
Sheet 4 of

Application Number	10/586,020
Filing Date	July 18, 2008
First Named Inventor	Morteza Naghavi
Art Unit	3768
Examiner Name	N. L. Evoy
Attorney Docket Number	1362001-2068.1

 96	WO 97/29783	08-21-1997	Nycomed Imaging
 97	WO 04/069284	08-19-2004	Bracco Research SA
98	WO 05/071437	08-04-2005	Stichting Voor de Technische Wetenschappen
99	WO 05/074365	08-18-2005	Technion Research and Development Foundation Ltd.
100	WO 05/107600	11-17-2005	Venousonics Ltd.
 101	WO 06/001697	01-05-2006	Angelsen et al.
102	WO 06/015876	02-16-2006	Stichting Voor de Technische Wetenschappen
103	WO 06/015877	02-16-2006	Stichting Voor de Technische Wetenschappen
 104	WO 06/021400	03-02-2006	Stichting Voor de Technische Wetenschappen

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Cite No.1 Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the litem (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>		
	105	Bouakaz, A., IEEE Trans Ultrason Ferroelec Freq Control, vol 50 no 5 (2003) pgs 496-506			
106 Frijlink, M.E., J Acoustic Soc Am, vol 120 no 3 (2006)					
107 Goertz, D. E., Ultrasound in Med & Biol, vol 32 no 4 (2006) pgs 491-502					
108 Shen, C. C., IEEE Trans Ultrason Ferroelec Freq Control, vol 50 no 9 (2003) pgs 1124-1133		Shen, C. C., IEEE Trans Ultrason Ferroelec Freq Control, vol 50 no 9 (2003) pgs 1124-1133			
109 Simpson, D. H. H., IEEE Trans Ultrason Ferroelec Freq Control, vol 46 no 2 (1999) pgs 372-382					

OHS West: 260362649.1

Examiner		Date	
Signature		Considered	
	·		**************************************

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicants unique citation designation number (optional). See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form: and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450 DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

IDS Form PTO/SB/08: Substitute for form 1449A/PTO

Sheet

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

	•		
	~		
	5	OT	,
·····	L		

Complete if Known			
Application Number	10/586,020		
Filing Date	July 18, 2008		
First Named Inventor	Morteza Naghavi		
Art Unit	3768		
Examiner Name	N. L. Evoy		
Attomey Docket Number	1362001-2068.1		

U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS					
Examine r Initials	Cite No.1	Document Number Number-Kind Code <sup>2</sup> (if known)	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
111111111111111111111111111111111111111	111	6602195	08-05-2003	Krishnan Sriram	( gures Appear
	112	5360007	11-01-1994	Shinomura, et al.	
	113	6200268	03-13-2001	Vince, et al.	
	114	5860929	01-19-1999	Rubin, et al.	
	115	6095976	08-01-2000	Nachtomy, et al.	***************************************
********	116	5324255	06-28-1994	Passafaro, et al.	
	117	5632277 A	05-27-1997	Chapman, et al.	·
	118	5706819 A	01-13-1998	Hwang, et al.	
	119	6155981 A	12-05-2000	Ermert, et al.	
	120	6186950 B1	02-13-2001	Averkiou, et al.	
	121	6302845 B1	10-16-2001	Shi, et al.	***************************************
	122	6436041 B1	08-20-2002	Phillips, et al.	
	123	6497665 B1	12-24-2002	Hunt, et al.	
	124	6652463 B2	11-25-2003	Hunt, et al.	7000000700 7070000 7007001777 7077 70 07000 7000 4000 4
	125	6969353 B2	11-29-2005	Brock-Fisher, et al.	
	126	7591788 B2	09-22-2009	Phillips, et al.	999999999469###########################
	127	7666139 B2	02-23-2010	Kakee, et al.	***************************************
	128	7713209 B2	05-11-2010	Guracar, Ismayil	
	129	7134994 A	11-14-2006	Alpert, et al.	
	130	7097620 A	08-29-2006	Corl, et al.	
	131	6976965 A	12-20-2005	Corl, et al.	•••••••••••••••••••••••••••••••••••••••
	132	6962567 A	11-08-2005	Eberle, et al.	
	133	6780157 A	08-24-2004	Stephens, et al.	and the state of the section of the
	134	6767327 A	07-27-2004	Corl, et al.	
	135	5711933	06-30-1998	Akamatsu, et al.	***************************************
	136	2008/0051660	02-28-2008	Kakadaris, et al.	***************************************
	137	2003/0028114 A1	02-06-2003	Casscells, et al.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	138	2002/0065487 A1	05-30-2002	Wollschlager	_
	139	2003/0100815	05-29-2003	Da Silva, et al.	
	140	2003/0236443	12-25-2003	Cespedes, et al.	······································
	141	2003/073907 A1	04-17-2003	Taylor	***************************************

#### Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.

Examiner Initials	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>e</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			
and the state of t	142	WO 00/49427 A		Koninklijke Philips Electronics N.V.	

IDS Form PTO/SB/08:	Substitute for form 1449A/PTO .

Sheet

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)
6 of

~	Со	mplete if Known
	Application Number	10/586,020
	Filing Date	July 18, 2008
	First Named Inventor	Morteza Naghavi
	Art Unit	3768
	Examiner Name	N. L. Evoy
	Attorney Docket Number	1362001-2068.1

Examiner Initials	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>5</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)		,	
	143		02-28-2002	Koninklijke Philips	
				Electronics N.V.	

	NONPATENT LITERATURE DOCUMENTS					
Examiner Initials	and the state of t					
FRINKING, P.J.A., et al., "Ultrasound Contrast Imagin: Current and New Potential Methods"  144 Ultrasound in Medicine and Biology, New York, New York, US, Vol. 26, No. 6, July 2000 (2000-07), pages 965-975						
	145	International Patent Application No. PCT/US2005/001436; International Search Report mailed June 8, 2005				

ľ	Examiner	Date	
1	Signature	Considered	
	COOLEAN COLOREST		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.